This listing of claims will replace the prior version in the application.

Claims

1. (currently amended) A continuous process for the preparation of ethyl lactate (I) by esterification of lactic acid for of a lactic acid composition, using ethanol according to the reaction (1):

$$CH_3CH(OH)CO_2H + CH_3CH_2OH = CH_3CH(OH)CO_2CH_2CH_3 + 11_2O$$
 (1)

which consists in comprising reacting said lactic acid with ethanol according to an ethanol/lactic acid molar ratio at least equal to 2.5, in the presence of a catalyst, at a temperature ranging from 50°C to 90°C and preferably ranging from 80°C to 90°C, at atmospheric pressure; said process being characterized in that comprising:

- continuously extracting a mixture comprising ethyl lactate, unconverted lactic acid, ethanol, water and small amounts of heavy products is continuously extracted, at atmospheric pressure, from the reaction medium at a degree of conversion of the lactic acid at most equal to 80%; then in that
- subjecting this mixture is subjected to a flash separation at a temperature of between 80°C and 90°C and under a pressure of less than or equal to 65 mbar, and in that.
- on the one hand, the subjecting a top stream from said flash separation, comprising ethyl lactate, ethanol and water, is subjected to a continuous fractional distillation, at atmospheric pressure, said top stream from said flash separation being introduced onto a specific plate of a distillation column; and
- continuously recycling on the other hand, the a bottom stream, composed essentially of unconverted lactic acid and of heavy products, is continuously recycled to the esterification reaction medium; and in that,
- recovering a mixture of ethanol and of water is recovered as a top product from the fractional distillation and
- recovering an ethyl lactate having a water content which makes possible its subsequent purification is recovered as a bottom product from the fractional distillation.
- 2. (previously presented) The process as claimed in claim 1, characterized in that use is made of an ethanol/lactic acid molar ratio ranging from 2.5 to 4.5.
 - 3. (currently amended) The process as claimed in either of claims 1 and 2claim 1.

characterized in that the mixture is extracted continuously from the reaction medium when the degree of conversion of the lactic acid is between 65% and 75%.

- 4. (currently amended) The process as claimed in any one of claims 1 to 30 aim 1, characterized in that the top stream exiting from the flash separation feeds a fractional distillation column at a point situated in the bottom part of said column.
- 5. (currently amended) The process as claimed in any one of claims 1 to 4c aim 1, characterized in that the fractional distillation of the top stream resulting from the flash separation is carried out at a column bottom temperature ranging from 152°C to 165°C.
- 6. (currently amended) The ethyl lactate obtained as claimed in any one of claims 1 to 5 claim 1, characterized in that it has a water content at most equal to 0.3%.
- 7. (new) The process as claimed in claim I characterized in that the temperature of said reaction ranges from 80°C and 90°C.

Respectfully submitted,

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